

FARM NEWS

CORN CLUB WORK IS OF GREAT VALUE

Every Encouragement Should Be Given the Boys' and Girls' Agricultural Clubs—There is An Increasing Interest and Enthusiasm in This Work of the Young People Which is Productive of Much Good.

By O. H. BENSON.

It is a well-established fact that both play and contest interests perform a very important part in the processes of education and have much to do in creating efficiency for man in the equation of social and industrial life.

The corn-club work is a very important factor in the economy of the farm in directing boys who live in rural districts in the business as a profitable and noble profession. The way in which the club work takes hold of a boy is quite remarkable, and from the enthusiasm created by the club work and contests, greater interest in farm life is sure to develop.

We need the boys for the present efficiency of the farm, and we must have their work, their leadership, and their influence for the future if American agriculture and rural interests are to endure and contribute as they should to human comfort and prosperity.

The purpose of this article is to suggest lines of interest and instruction in addition to the regular club work, which has to do with the acre yield at a reasonable cost of production. These club contests may well be taken up in connection with the rural and village schools; county, district, and state fairs; farmers' institutes, and educational gatherings, with a view to giving direction and interest as well as important training during the entire year. The club contests will enable both teacher and parent to win the boy for better things in needed educative and efficient farm life. Much could be said about the influ-



Two Corn-Club Boys Discussing the Merits of Ears of Seed Corn.

ence of this kind of work upon actual production and land values.

Boys' corn-club work should be constructive and permanent and in order that it may be so the following lines of contest work are suggested to the club membership. These contests should offer some relaxation from the main line of work and should be practical and recreative as well as instructive. The following are a few of the objects of corn-club contests:

- (1). To increase members' interest in corn in all of its import phases.
- (2). To secure better seed corn and consequently better yields. (All seed should be returned to the exhibitors.)
- (3). To give industrial activity and practice to club members for the entire year.
- (4). To give members greater interest in club work through combined play and contest methods.
- (5). To furnish profitable diversion to the boys during the otherwise idle hours of play time and vacation periods. "An ounce of prevention is better than a pound of cure."
- To stimulate interest in the contests the following premiums would be most suitable:
 - (1). Free trips and expenses paid to district and state fairs, educational institutions, chautauquas, etc.
 - (2). Top buggy, saddle, gold watch, automobile, etc.
 - (3). Clear title to one or more acres of land (to encourage land ownership).
 - (4). Farm implements, tools, equipment, etc.
 - (5). Thoroughbred pigs, cattle, horses, mules, pens of chickens.
 - (6). Club emblems, banners and pennants.
 - (7). Manual training workbench, set of tools, camera, trunk, leather hand bag, writing desk, etc.
 - (8). Poultry equipment, such as incubators, watering and feed troughs, brooders, fences and gates.
 - (9). Free tuition to short courses in agricultural and mechanical colleges and regular courses in colleges.
 - (10). Canvas tent, camp outfit, canoe, hunting equipment, baseball suit, suits of clothes.
 - (11). Dictionary, encyclopedia, set of agricultural books, special club library, series of books of standard literature.
 - (12). Subscriptions to farm jour-

nals, magazines or special periodicals for boys.

Every premium offered for contests and club work should have for its main object the promotion and encouragement of the work. The premium should represent the greatest need and interest of the corn-club membership; it must each the broad viewpoint of the club work and encourage both members and leaders to be progressive and constructive in their work, and it should serve to increase the club members' interest and respect for farm life.

Club leaders, county superintendents, teachers, and others interested in promoting agricultural and rural-home interests should lose no opportunity to have exhibits and interests recognized effectively at county, district and state fairs, county farmers' institutes. Short courses, and teachers' associations are excellent mediums for promoting club work, and an exhibit of club products, special contests, essays, and general discussions on phases of the work should occupy some place and time during the regular session. Do not wait for an invitation to submit club interests, but proceed at once to make and present your plans to the proper officials, such as the secretary, the president, and the various premium and program committees. Most of these will be glad to recognize the boys and girls in their work and club interests in every way possible.

ALFALFA GROWING IN NORTH.

It Has Been Demonstrated That, With a Proper Understanding of the Cultural Requirements of the Crop, and Care in the Selection of Varieties, Alfalfa May Be Satisfactorily Grown in Many Parts of the Northern States.

A. ARMY.

In red clover, alfalfa has a rival in many parts of the north. Here red clover luxuriates on a soil to which it seems especially adapted and which, while sharing with alfalfa the capacity for supplying nitrogen, both as a fertilizer to the soil and as a nutritive element in feed, lacking in other field crops, has also shown greater endurance under the trying conditions of climate than have some of the strains of alfalfa that have been sown in the north.

Alfalfa, however, is recognized as having a higher feeding value than clover. Could it, therefore, be made a part of ordinary rotations, it might be given a preference. On small farms, or on any farms intensively cultivated, its value as a nitrogenous food—superior to clover—and the greater certainty of a crop when once fairly started, make it desirable that it should at least be tested in a small way. The longer life of an alfalfa meadow, as compared to one of clover, will often make it a most valuable adjunct to the farm. Success in handling the crop in a small way, supplemented by the knowledge thus acquired of the conditions making for such success, will afford the best guarantee against failure should it later be determined to devote to alfalfa a larger number of acres. Alfalfa growing, in its present more or less experimental stage in the north, is compared with corn growing, once thought economically impracticable in many sections of the north on account of the short growing season.



Alfalfa Leaves.

Just as corn is now successfully and profitably grown in every State, so may careful experimentation make alfalfa a permanent factor in the agricultural prosperity of almost every section.

Any good corn land—any land not too wet to grow red clover—should produce alfalfa as well. An abundance of vegetable matter in the soil is essential, and so also is good drainage, such as will prevent water from standing long on the surface in low places, in winter, in spring, or after summer rains. The water level in the soil should not be nearer than seven or eight feet from the surface.

When a good stand of alfalfa is secured the field is usually surrendered to this crop for four or five years, unless the plants are winter-killed. This should be borne in mind in choosing a location so that it may

not interfere with the best arrangement of the farm as a whole.

By the millions of bacteria which generally live in connection with the legumes, like alfalfa, clover, beans, peas, etc., nitrogen is taken from the air and stored in the roots of the plants. Part of it is used by the plants in their growth, and part becomes available to other plants when the roots of the legumes have decayed. Supplied with nitrogen in this way, all leguminous plants grow better, and produce more nutritious hay than where no bacteria are found in the nodules on their roots. Therefore, when alfalfa is planted on a field in a locality where no alfalfa has been grown before, it is almost always a good plan to introduce some of the right kind of bacteria into the soil so that they will be able to work in connection with the alfalfa plants very soon after they begin to grow. Such introduction is called inoculation. The process is simple. Soil from a field on which alfalfa is growing luxuriantly, and where the nodules in which they multiply show that it contains the desired bacteria, is scattered broadcast, at the rate of 200 pounds or more per acre, and harrowed in, just before or after sowing the alfalfa seed. Care should be exercised to get soil only from clean, healthy fields. Soil well supplied with vegetable matter which makes it a congenial place for bacteria to live is less likely to require inoculation than is a soil deficient in vegetable matter.

When alfalfa has been grown on any farm with success for several years, and the soil in the different fields is inoculated, it should be worked out in with the regular rotation, for the same reasons that red clover is used in rotations. However, in using alfalfa in rotation, it should be remembered that it is a true perennial. That is, unless winter-killed, it usually continues to live for many years. In this respect it differs from red clover, which is a biennial and hence may be expected to die out at the end of the second growing season from planting the seed. Alfalfa is as valuable as clover in keeping up the productivity of the soil through the addition of vegetable matter and nitrogen, but it is not adapted for changing to a new field every year or every two years as is clover.

IMPROVED TESTS OF DAIRY PRODUCTS.

By S. M. Babcock and E. H. Farrington.

There is a growing demand among milk consumers as well as dealers and manufacturers of high-grade dairy products for a new test that will show the cleanliness and purity of each lot of milk received. The testing of milk at creameries and cheese factories is usually confined to a fat determination by the Babcock test. The acid is also used more or less for inspecting different lots of milk and cream.

The grading of milk and cream at factories has been attempted to some extent in recent years and an effort has been made to base the price paid for each lot upon the purity of the milk as well as upon its richness and per cent of acidity. The method commonly used for this purpose has, as a rule, been confined to an inspection of sediment noticed in the bottom of the milk cans when these are emptied.

The benefits to be derived from such an inspection depend largely on the expertness of the individual inspector and the acuteness of his sense of smell and taste. This, undoubtedly, is of some value, but since there is no universal standard that can be adopted by all persons doing such work, the opinions of different inspectors may differ in regard to the purity of the same lots of milk.

The contamination of milk before it reaches the consumer is caused largely by dirt or suspended matter that gets into it through carelessness in milking or through failure to protect the cans from dust during transportation. Nearly all milk is strained at the farms and this removes some dirt. There is, however, a certain amount of sediment left that is not removed by the strainers ordinarily used for this purpose. A complete separation of the dirt and suspended matter in sweet milk is not an absolute proof of the amount of character of the impurities which may have been dissolved in the milk and cannot, therefore, be separated by filtration. A fairly good idea of the extent to which each lot of milk has been contaminated may be obtained, however, by a test that will show the amount of dirt contained in a definite quantity of milk.

Milk sediment tests are used to some extent in Europe. These make it possible to note not only the amount of suspended matter in the milk, but by collecting the sediment in narrow tubes the impurities may be examined further.

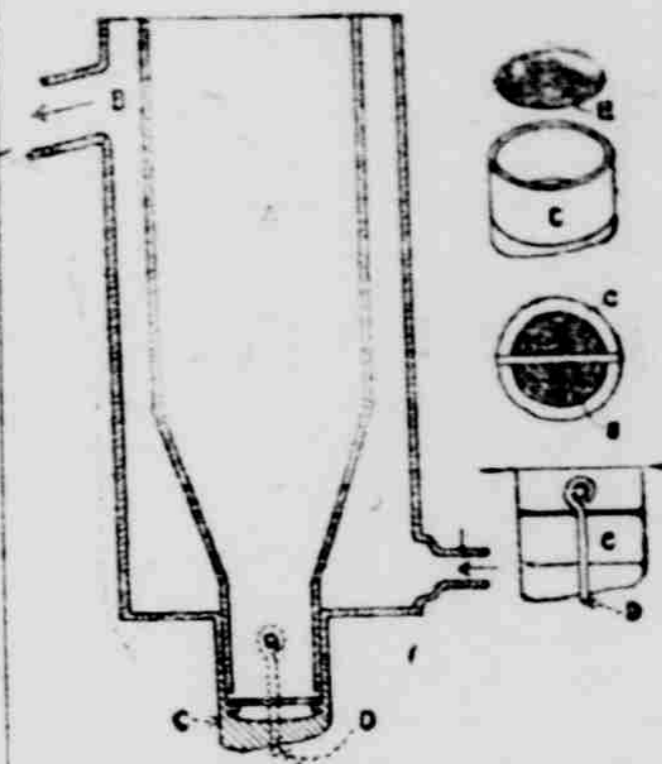
The value of a milk sediment test which will quickly show the amount of dirt in a given quantity of milk can be readily appreciated by the consumer and when the evidence obtained by such a test can be shown to the milk producer, it will help to convince him that greater care is needed to protect the milk from contamination during milking and handling. The amount of sediment obtained by the test will in many cases be a great surprise to both milk producer and dealer.

A milk sediment test, which was constructed by E. H. Lorenz, Madison,

Wis., according to suggestions made by the writers, is herewith described. This test may be used for testing a large number of lots of milk. Samples of one pint of milk will filter through it as fast as each lot is ready.

The inside cylinder is 2 1/2 inches in diameter and 6 inches long. It is funnel-shaped at the bottom, terminating in an opening about an inch in diameter. A cap on the bottom contains a wire gauze strainer on which a thin disc of absorbent cotton is placed. This cap is easily attached to the apparatus by means of a hinged wire loop.

After a sample of milk has been filtered through the apparatus, the cap containing the gauze and the cotton filter is detached and the cotton disc placed on a piece of white paper to dry. This cotton contains the dirt and sediment collected from one pint of milk. The amount of dirt obtained will vary with different lots of milk and the discs when dry may be re-



turned to the milk producer as evidence of the degree of cleanliness of his milk. Each cap should have a number stamped in the metal and as fast as one lot of milk is tested the cap may be removed and another put in place for the next sample. The absorbent cotton discs used as filters are stamped out to fit the cap and wire gauze. The success of filtering depends largely on the texture of these discs which should be made of absorbent cotton that contains no starch or "sizing." The latter have a glossy surface, but the "unsized" cotton or cotton batting cut out in the shape of round discs about one-eighth of an inch thick allows the hot milk to filter rapidly through it and retains the fine dirt which is suspended in the milk. The milk is kept hot in this tester during filtering by means of a hot water jacket, surrounding the inner cylinder.

SOIL EROSION HURT TO AGRICULTURE IN SOUTH.

Large Areas Lost to Cultivation Every Year.

The following statement regarding soil erosion in the South is taken from the annual report of the Bureau of Soils of the Department:

In a study of soil erosion in the South it has been found that large areas are lost to agriculture annually through erosion. In some States vast areas, amounting to as much as 50 per cent of the arable land of these sections, have been abandoned. The character of the erosion varies with the type of soil. Usually, on the heavy clay soils, "sheet" or surface erosion is found. With increasing proportion of sand in the soil the erosion changes to the "shoestring" type, then to the gully type, with rounded edges, and finally to the gullies with caving sides. The most rapid erosion seems to occur in soils having a lower of silt or clay at the surface and a substratum of sand. This condition usually leads to erosion of the deep gully type, which is difficult to check and unprofitable to reclaim.

All methods for prevention and control are based either on increasing the capacity for absorbing the water as it falls, or on decreasing the velocity of the run-off. A new method in use in one locality is the construction of what are known as "christophers," the distinctive feature of this plan lying in the manner of disposing of storm waters. Across an incipient gully is built a dam, through which is passed a sewer pipe connected with an upright pipe on the upper side of the dam. Water fills the valley until it reaches the top of the upright pipe, and then flows down this pipe into the next field. The water left standing below the mouth of the upright pipe is gradually removed by a tile drain. It is also demonstrated in the South that other crops must be grown than those requiring clean culture, as do cotton, corn, and tobacco.